

# **NJ Department of Environmental Protection**



## **State Development & Redevelopment Plan Plan Endorsement Opportunities & Constraints Analysis**

for:

Bedminster Township, Somerset County

*May 30, 2008*

*This document constitutes the Department of Environmental Protection's component of the State Opportunity and Constraints Analysis conducted as part of the Plan Endorsement process. This document should serve as a baseline to inform the rest of the Plan Endorsement process. This document provides a general overview of the Department's regulatory and policy concerns within Tuckerton Borough and Little Egg Harbor Township. While all reasonable efforts have been made to address all significant issues, the ever-evolving nature of regulatory programs and natural conditions dictates that the information contained within this document will need to be updated on a regular basis.*

*This document does not, and no portion of this document shall be interpreted to, grant any specific regulatory or planning approvals by the Department. This document is to be used solely as guidance for municipal planning purposes.*

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## 2002 Land Use/Land Cover

The 2002 Land Use/Land Cover (LULC) dataset captures the state of the land use and natural land cover statewide. The land use/land cover data sets contain important land use data used in a wide variety of environmental analyses, including this analysis, as well as in other DEP programs. This data set is intended to serve as a resource for analysis rather than regulatory delineations.

This latest series is based on photography captured in the Spring of 2002 and were produced by visually interpreting color infrared photography. Every effort has been made to ensure that all land use data sets are as accurate as possible. However LULC data are not intended to substitute for on the ground jurisdictional boundaries.

Freshwater wetlands were first mapped under the New Jersey Freshwater Wetlands Mapping Program and were incorporated into the land use land cover datasets. The freshwater wetlands delineations in these data are for screening purposes only and are **not** regulatory. The Division of Land Use Regulation of the NJDEP determines the extent and final determination of freshwater wetlands in the State of New Jersey.

Based on this analysis, the following land use/land cover types, and their approximate acreages, are found in Bedminster:

Type	Acres
Agriculture	6256.45
Barren Land	51.22
Forest	6277.88
Urban	3080.13
Water	178.58
Wetlands	1060.61

Attachments:

§ Map - Land Use/Land Cover in Bedminster

# Water & Wastewater Analysis

*Sufficient water supply and the ability to treat wastewater are essential to any community. The following information on Water Availability and Wastewater Treatment should be used by the community to evaluate its ability to meet current and future demand for water and wastewater treatment. Using this information to plan for future development allows a municipality to estimate the number of people the current (and/or future systems) can sustain. It also provides a way for a municipality to determine where growth is most appropriate, taking into account where water can be treated and supplied.*

## Water Availability

*The following information on Water Availability in Bedminster Township is based upon the best data readily available to DEP at the time of this analysis. This data should be used by Bedminster to inform its community vision and planning processes.*

There are two (2) Public Water Supply Systems in Bedminster, each serving a portion of Bedminster's population. The Deficit/Surplus tables, and a map showing the systems locations within the municipality, are provided with this report.

PWSID	Water System Name	Water System Type
<a href="#">2004002</a>	New Jersey American – Elizabethtown	Community
<a href="#">0712001</a>	NJ American Water Company–Short Hills	Community

The Deficit/Surplus tables for both NEW JERSEY AMERICAN – ELIZABETHTOWN, and NJ AMERICAN WATER COMPANY – Short Hills, show available capacity for those systems. However, the existing capacity may not be available to Bedminster as both are large systems serving areas beyond Bedminster Township.

The Deficit/Surplus tables for Public Water Systems may be found on the Department of Environmental Protection, Division of Water Supply website at <http://www.nj.gov/dep/watersupply/pws.htm>. Not all Public Water Supply Systems will have associated Deficit/Surplus tables available on the Department's website. The website currently contains public water systems that have a demand greater than 100,000 gallons of water per day and have had some water main extension activity since January 1, 2002. For safe demand and firm capacity information not available on this web site please contact the Bureau of Water System and Well Permitting at 609-984-6831 or for water allocation information please contact the Bureau of Water Allocation at 609-292-2957.

Refer to [Firm Capacity and Water Allocation Analysis](#) document for a detailed description of the methodology used to calculate capacity limitations.

There are also multiple Non-Community Water Systems serving specific uses in Bedminster Township.

PWSID	Water System Name	Population Served	Water System Type
<a href="#">1801309</a>	Lamington Presbyterian Church	3	Noncommunity Transient
<a href="#">1801309</a>	Lamington Presbyterian Church	50	Noncommunity Transient
<a href="#">1801308</a>	Trump National Golf Course	50	Noncommunity Non-transient
<a href="#">1801308</a>	Trump National Golf Course	100	Noncommunity Non-transient
<a href="#">1801308</a>	Trump National Golf Course	175	Noncommunity Non-transient
<a href="#">1801307</a>	Fiddlers Elbow Golf Course	100	Noncommunity Non-transient
<a href="#">1801307</a>	Fiddlers Elbow Golf Course	400	Noncommunity Non-transient

### Wastewater Treatment

*The following information on Wastewater Treatment in Bedminster is based upon the best data readily available to DEP at the time of this analysis. This data should be used by Bedminster to inform its community vision and planning processes.*

There are several regulated wastewater facilities serving Bedminster. The largest is the Environmental Disposal Corporation - NJPDES permit number NJ0033995. The annual average flow for this facility in 2006 was 1.4214 mgd; the permitted flow for this facility is 2.1 mgd. Based on this information, approximately one third of the permitted flow for this facility remains available to support development in the service area. Based on the assumption that a residential unit uses 300 gpd, the remaining flow for this facility could accommodate approximately 2,262 new residential units. However, this facility also serves the surrounding municipalities of Peapack Gladstone, Far Hills, and Bernards Township. Therefore, while there appears to be capacity for treatment of further development, it is not necessarily available to Bedminster Township. Bedminster Township has made note of this fact in its Municipal Self Assessment.

There are a number of additional small wastewater facilities in the Township, including those serving the Fiddler's Elbow Country Club, Hamilton Farm, Trump National Golf Course and the Willow School. These small wastewater facilities are permitted to handle flows associated with a particular entity and generally cannot accommodate significant additional flow.

Amendments to the Groundwater Quality Standards (N.J.A.C. 7:9C) have recently been proposed. The primary amendment related to this analysis is the proposal to establish 2 mg/L (or parts per million, or ppm) nitrate as representative of the existing ground water quality statewide, for the purpose of evaluating compliance with the antidegradation policy at N.J.A.C. 7:9C-1.8(a). Currently, the adopted Groundwater Quality Standard for nitrate is 5.2 mg/L. The implications of this proposal are that the Department will not approve a wastewater plan amendment unless the Department first determines that the existing ground water quality of 2 mg/L nitrate will be maintained on a HUC 11 watershed basis. Based on this proposal, the Department has developed a "septic density" for each HUC 11 watershed in the State that identifies what the *comparable residential zoning density* would be in order to meet the groundwater quality goal. Note

that the Department does not recommend uniformly zoning at these densities across the HUC 11 watershed. DEP intends this comparable residential zoning density to represent the total number of units that, if built, would not result in a degradation of groundwater quality by exceeding the 2 mg/L nitrate limit. Instead, the Department advocates center-based development, clustering, and protection of environmental features and agriculture land.

Bedminster falls within three (3) HUC11 watersheds – Lamington River (HUC11-33), Raritan River (above Lamington) (HUC11-40), and Raritan River NB (SB to Lamington) (HUC11-49). The following table indicates the residential density allowed under the two different nitrate limits.

	<b>5.2 mg/L nitrate limit</b>	<b>2 mg/L nitrate limit</b>
Lamington River	1.6 acres/ residential unit	4.1 acres/ residential unit
Raritan River (above Lamington)	1.6 acres/residential unit	4.0 acres/residential unit
Raritan River NB (SB to Lamington)	2.3 acres/ residential unit	6.0 acres/ residential unit

#### Water Quality Management Plan - Sewer Service Area Mapping

The Department has proposed amendments to the Water Quality Management Planning rules identifying the conditions where extension of sewer service is not appropriate. N.J.A.C. 7:15-5.24 sets forth the general policy that large contiguous areas of environmentally sensitive resources, coastal planning areas where the extension of sewers would be inconsistent with New Jersey's Coastal Zone Management program, and special restricted areas that are prone to natural hazards such as flooding, wave action and erosion should not be included in sewer service areas. The limitations on the extension of sewer service in these areas is consistent with the Department's mandate to protect the ecological integrity and natural resources of New Jersey, including water, threatened and endangered species, wetlands and unique and rare assemblages of plants.

Centralized wastewater is inappropriate for these areas because it subsidizes and otherwise encourages development in and around these natural resources at a density that is inconsistent with their protection and the environmental protection mandate of the Department. The Department has determined that the appropriate wastewater management alternative for these areas is individual subsurface sewage disposal systems that discharge less than 2,000 gallons per day, typically thought of as septic systems. Therefore, though excluded from the extension of sewer service, these areas have a wastewater management alternative that will promote a density of development consistent with the conservation of these resources.

In establishing the criteria for delineating a sewer service area boundary in consideration of environmentally sensitive areas, the Department identifies environmentally sensitive areas that are not appropriate for sewer service area as any contiguous area of 25 or more acres that contains any or all of the following four features: threatened and endangered species habitats, Natural Heritage Priority Sites, Category One stream buffers, and wetlands. The Department determined that 25 acres was the appropriate size threshold

based on a statewide GIS analysis showing that at least 90 percent of the environmentally sensitive features would be excluded from sewer service area, but that the threshold should be large enough to permit the reasonable application of zoning.

The Department is currently working with the County of Somerset through a pilot program in development of a county-wide Wastewater Management Plan based upon on the recent Water Quality Management Planning rules. Bedminster should continue to coordinate with the County to ensure consistency between municipal planning and the County WMP.

Attachments:

- § Deficit/Surplus table – New Jersey American Elizabethtown Water Company - <http://www.nj.gov/cgi-bin/dep/watersupply/pwsdetail.pl?id=2004002>
- § Deficit/Surplus table – New Jersey American – Short Hills - <http://www.nj.gov/cgi-bin/dep/watersupply/pwsdetail.pl?id=0712001>
- § Map - Water Purveyor Areas
- § Map - Sewer Service Areas in Bedminster Township
- § May - Nitrate Dilution Concentrate Target by HUC11



# Environmental Constraints Analysis

*The following section identifies those environmental constraints that should be considered by Bedminster in its planning efforts. These environmental constraints are divided into 3 sections - Regulated Constraints, Constraints to Avoid, and Constraints to Consider.*

## Regulated Environmental Constraints

*Wetlands and Category One Waters are environmental constraints currently regulated by DEP. Bedminster should recognize these environmental constraints in its visioning and planning processes.*

### § Wetlands

Freshwater wetlands and transition areas (buffers) are regulated by the Freshwater Wetlands Protection Act rules (NJAC 7:7A). The Highlands rule (NJAC 7:38), which implements the Highlands Water Protection and Planning Act, prohibits nearly all disturbance within all wetlands within the Highlands Preservation Area.

Wetlands are commonly referred to as swamps, marshes, or bogs. However, many wetlands in New Jersey are forested and do not fit the classic picture of a swamp or marsh. Previously misunderstood as wastelands, wetlands are now recognized for their vital ecological and socioeconomic contributions. Wetlands contribute to the social, economic, and environmental health of our state in many ways:

- § Wetlands protect drinking water by filtering out chemicals, pollutants, and sediments that would otherwise clog and contaminate our waters.
- § Wetlands soak up runoff from heavy rains and snow melts, providing natural flood control.
- § Wetlands release stored flood waters during droughts.
- § Wetlands provide critical habitats for a major portion of the state's fish and wildlife, including endangered, commercial and recreational species.
- § Wetlands provide high quality open space for recreation and tourism.

There are on-site activity limits on lands identified as wetlands. The NJ Freshwater Wetlands Protection Act requires DEP to regulate virtually all activities proposed in the wetland, including cutting of vegetation, dredging, excavation or removal of soil, drainage or disturbance of the water level, filling or discharge of any materials, driving of pilings, and placing of obstructions. The Department may also regulate activities within 150 feet of a wetland - called the transition area or buffer.

Land Use/Land Cover data based on 2002 aerial photography identifies approximately 1,060 acres of wetlands in Bedminster. It should be noted that these wetlands are based on aerial photo interpretation and are **not** appropriate for use in determining the true extent of wetlands on a specific site.

§ Category One (C1) Waterbodies & Associated Buffers

Category One designations are established in the Surface Water Quality Standards (NJAC 7:9B) – specifically in the tables in N.J.A.C. 7:9B-1.15(c) through (g) - for purposes of implementing the antidegradation policies set forth at N.J.A.C. 7:9B-1.5(d). These waters are designated to provide for their protection from measurable changes in water quality characteristics because of their clarity, color, scenic setting, other characteristics of aesthetic value, exceptional ecological significance (habitat, water quality, and biological functions), exceptional recreational significance, exceptional water supply significance, or exceptional fisheries resource(s).

The Department has proposed (May 21, 2007 NJ Register) to amend N.J.A.C. 7:9B-1.4 to revise the definition of “category one waters” and introduce new definitions for “Exceptional Ecological Significance”, “Exceptional Fisheries Resource(s)”, “Exceptional Water Supply Significance”, and “HUC 14”. In addition, the Department is proposing to upgrade the antidegradation designation of hundreds river miles to Category One throughout New Jersey.

The Stormwater Management rule (NJAC 7:8) is implemented through DEP Land Use and local regulation. The rule regulates development within 300 feet, and stormwater discharges within 150 feet, of Category One waterways and their tributaries, upstream within the same HUC14 subwatershed. The Stormwater rule establishes a 300-foot Special Water Resource Protection Area (SWRPA) along Category One (C1) waters and certain tributaries that applies only when a “major development” is proposed.

The recently adopted Flood Hazard Area Control Act (FHACA) rule (N.J.A.C. 7:13) (November 5, 2007 NJ Register) also establishes a 300-foot riparian zone along C1 waters and their upstream tributaries within the HUC-14. This FHACA rule applies to any activity that requires approval in the rule. The Riparian Zone under the FHACA rule is the land and vegetation both within a regulated waterbody and within 50 feet, 150 feet or 300 feet from the top of bank of a regulated waterbody. Given the many important ecological functions that a healthy riparian zone provides, adequately preserving such areas is essential to protecting New Jersey's natural resources and water supply.

For the purposes of this analysis, the Department is providing generalized information and mapping of C1 waterbodies and associated buffers. This analysis should be used only as a general planning tool. Specific development proposals may be affected, consistent with the information provided above.

The following waterbodies within or adjacent to Bedminster are designated Category one waters:

- § Herzog Brook
- § Lamington River
- § Peapack Brook

- § Cold Brook
- § Hollow Brook

300 foot buffers on these waterbodies constitute approximately 676 acres in Bedminster Township.

The following waterbodies within or adjacent to Bedminster are proposed for designation as Category one waters:

- § Muddy Run
- § Tributaries to Lamington River

300 foot buffers on these waterbodies constitute approximately 500 acres in Bedminster Township.

The Surface Water Quality Standards data used for this analysis is based on a DRAFT version released for general distribution as a preliminary product. NJDEP is releasing this draft version for public review and any potential data errors should be reported to the Department.

#### § Floodprone areas

Flood Hazard Areas - The recently adopted Flood Hazard Area Control Act rule (NJAC 7:13) regulates development within the floodplain and the Riparian Zone (50 - 300 feet adjacent to the water). Under this rule all projects that are adjacent to a “regulated water” that is designated C1 or is upstream within the HUC 14 of a “regulated water”, regardless of whether they are mapped, require a Flood Hazard Area Control Act permit. Bedminster Township should take the Flood Hazard Area Control Act and associated buffers into consideration when performing visioning requirement of Plan Endorsement.

The map provided shows the FEMA flood map zones. The Federal Emergency Management Agency continually updates these maps, and Bedminster Township and their residents should refer to their website for current information. Additional information regarding FEMA’s Flood Insurance Rate Map (FIRM) follows the map provided. Please note that the area regulated by the Flood Hazard Area Control Act rule do not necessarily align with the FEMA flood map zones.

#### § Total Maximum Daily Loads (TMDL)

In accordance with Section 303(d) of the Federal Clean Water Act (CWA) (33 U.S.C. 1315(B)), the State of New Jersey is required biennially to prepare and submit to the United States Environmental Protection Agency (USEPA) a report that identifies waters that do not meet or are not expected to meet Surface Water Quality Standards (SWQS) after implementation of technology-based effluent limitations or other required controls. This report is commonly referred to as the 303(d) List. In accordance with Section 305(b) of the CWA, the State of New Jersey is also required biennially to prepare and submit to the USEPA a report

addressing the overall water quality of the State's waters. This report is commonly referred to as the 305(b) Report or the Water Quality Inventory Report. The Integrated Water Quality Monitoring and Assessment Report combine these two assessments and assigns waterbodies to one of five sublists on the Integrated List of Waterbodies. Sublists 1 through 4 include waterbodies that are generally unimpaired (Sublist 1 and 2), have limited assessment or data availability (Sublist 3), or are impaired due to pollution rather than pollutants or have had a Total Maximum Daily Load (TMDL) or other enforceable management measure approved by the USEPA (Sublist 4). Sublist 5 constitutes the traditional 303(d) list for waters impaired or threatened by one or more pollutants, for which a TMDL may be required.

Therefore, in accordance with Section 305(b) and 303(d) of the Federal Clean Water Act (CWA), the State of New Jersey, Department of Environmental Protection (Department) is required to assess the overall water quality of the State's waters and identify those waterbodies with a water quality impairment for which TMDLs may be necessary. A TMDL is developed to identify all the contributors of a pollutant of concern and the load reductions necessary to meet the SWQS relative to that pollutant. The Department fulfills its assessment obligation under the CWA through the Integrated Water Quality Monitoring and Assessment Report, which includes the Integrated List of Waterbodies (303(d) list) and is issued biennially. The *Integrated List of Waterbodies* is adopted by the Department as an amendment to the Statewide Water Quality Management Plan, as part of the Department's continuing planning process pursuant to the Water Quality Planning Act at N.J.S.A.58:11A-7 and the Statewide Water Quality Management Planning rules at N.J.A.C. 7:15-6.4(a).

A TMDL represents the assimilative or carrying capacity of a waterbody, taking into consideration point and nonpoint sources of pollutants of concern, natural background, and surface water withdrawals. A TMDL quantifies the amount of a pollutant a water body can assimilate without violating a state's water quality standards and allocates that load capacity to known point and nonpoint sources in the form of waste load allocations (WLAs) for point sources, load allocations (LAs) for nonpoint sources, a margin of safety (MOS) and, as an option, a reserve capacity (RC).

TMDLs have been developed for two waterbodies impacting Bedminster Township – Lamington (Black) River NR Pottersville, and Lamington River at Burnt Mills. Further information on these TMDLs will be forthcoming.

The Department recognizes that TMDLs alone are not sufficient to restore impaired stream segments. The TMDL establishes the required pollutant reduction targets while the implementation plan identifies some of the regulatory and non-regulatory tools to achieve the reductions, matches management measures with sources, and suggests responsible entities for non-regulatory tools. This provides a basis for aligning available resources to assist with implementation activities. Projects proposed by the State, local government units and other stakeholders that would implement the measures identified within the impaired watershed are a priority for available State (for example, CBT) and

federal (for example, 319(h)) funds. In addition, the Department's ongoing watershed management initiative will develop detailed watershed restoration plans for impaired stream segments in a priority order that will identify more specific measures to achieve the identified load reductions. Urban and agricultural land use sources must be the focus for implementation. Urban land use will be addressed primarily by stormwater regulation. Agricultural land uses will be addressed by implementation of conservation management practices tailored to each farm.

The Department is in the process of updating the mapping of TMDLs for much of the State. Maps should be available in the near future and the Township can contact the Division of Watershed Management's Bureau of Environmental Analysis and Restoration at 609-633-1441 for additional information on TMDLs in their municipality. For more information on TMDLs, please visit the Department's website at: <http://www.state.nj.us/dep/watershedmgt/tmdl.htm>.

Attachments:

- § Map – Wetlands and C1 Streams and Buffers
- § Map – FEMA Flood Zones

## Environmental Constraints to Avoid

*Threatened and Endangered Species Habitat and Natural Heritage Priority Sites are geographically-identified environmental constraints prioritized for protection by DEP's mandate to protect the ecological integrity and natural resources of New Jersey. DEP recommends avoidance of these areas, to the extent possible, in order to protect these ecosystems from degradation and destruction.*

*While Threatened and Endangered Species Habitat and Natural Heritage Priority Sites are not specifically regulated as such, the species and sites that are the basis for this information are considered in several DEP regulatory and planning programs - such as the Freshwater Wetlands Program, Water Quality Management Planning, and the Flood Hazard Area Control Act rule.*

### § Threatened & Endangered Species Habitat

The New Jersey Endangered Species Conservation Act was passed in 1973 and directed the New Jersey Department of Environmental Protection (DEP) to protect, manage and restore the state's endangered and threatened species. The DEP Endangered and Nongame Species Program (ENSP) has since become the voice for more than 400 species of wildlife in New Jersey, with success stories related to the Bald Eagle, the Peregrine Falcon, the Pine Barrens Treefrog, the Osprey, and others. There are currently 73 endangered and threatened wildlife species in New Jersey. Wildlife professionals within DEP's Endangered and Nongame Species Program oversee research, conservation and protection of rare wildlife species such as the bog turtle, great blue heron, piping plover, bobcat, and other animals that are struggling to survive here in New Jersey.

ENSP has developed the Landscape Project to identify and systemically map the habitat most critical for New Jersey's fish and wildlife populations. This tool is being used to gauge healthy ecosystems and help identify areas appropriate for protection while giving citizens and local government officials valuable scientific information about their municipalities. The Landscape Project ranks habitat patches by the status of the species present, as follows:

- § **Rank 5** is assigned to patches containing one or more occurrences of at least one wildlife species listed as endangered or threatened on the Federal list of endangered and threatened species.
- § **Rank 4** is assigned to patches with one or more occurrences of at least one State endangered species.
- § **Rank 3** is assigned to patches containing one or more occurrences of at least one State threatened species.

There are approximately 11,941 acres of threatened and endangered species habitat in Bedminster. This habitat supports a wide range of species, including Bobolink, Barred Owl, Savannah Sparrow, Red-shouldered Hawk, and Wood Turtle. The attached *Threatened & Endangered Species Habitat map* shows the extent of habitat in Bedminster (including habitat for priority species – Rank 2 – that are discussed below in the 'Environmental Constraints to Consider' section).

Note that this analysis is based on recently updated Landscape Project data that was released in May, 2008. This data is available for download on the DEP website at: <http://www.nj.gov/dep/gis/landscape.html>.

## § Natural Heritage Priority Sites

Through its Natural Heritage Database, the DEP Office of Natural Lands Management (ONLM) identifies critically important areas to conserve New Jersey's biological diversity, with particular emphasis on rare plant species and ecological communities. The database provides detailed information on rare species and ecological communities to planners, developers, and conservation agencies for use in resource management, environmental impact assessment, and both public and private land protection efforts. Using the database, ONLM has identified 343 Natural Heritage Priority Sites (NHPS), representing some of the best remaining habitat for rare species and rare ecological communities in the state. In addition, each NHPS includes a Biodiversity Rank according to its significance for biological diversity using a scale developed by The Nature Conservancy, the network of Natural Heritage Programs and the New Jersey Natural Heritage Program. The global biodiversity significance ranks range from B1 to B5. The state biodiversity significance ranks for sites in the Highlands Region range from V1 to V5. The specific definitions for each rank for NHPS in Bedminster are as follows:

**B4** - Moderate significance on a global level, such as a viable occurrence of a globally rare element, a good occurrence of any ecological community, a good or excellent occurrence or only viable state occurrence of an element that is critically imperiled in the State, an excellent occurrence of an element that is imperiled in the State, or a concentration (4+) of good occurrences of elements that are imperiled in the State or excellent occurrences of elements that are rare in the State.

**B5** - Of general biodiversity interest.

**V3** - High significance on a state level. Includes sites containing the best occurrence in the state or an excellent occurrence of a state imperiled element; or multiple (2+) other occurrences for state imperiled elements and/or excellent, good or moderate quality occurrences of state rare elements.

**V5** - Any site with any other occurrence of a state rare element.

There are two (2) NHPS located within Bedminster Township, as follows:

SITE NAME	DESCRIPTION	BIODIVRANK	BIODIVCOMM
Burnt Mills	The site contains a large mature floodplain forest community associated with the Raritan River. Bordering the mature forest are additional	B4V5	The site contains a good quality occurrence of a state rare ecological community. Perhaps the best remaining floodplain forest stand on the Raritan River.

	younger forests and cleared areas associated with runways at Somerset Airport.		
Pluckemin Overlook	Rocky woods over trap rock.	B5V3	Contains occurrences for two state imperiled plant species.

Attachments:

- § Map - Threatened, Endangered & Priority Species Habitat and Natural Heritage Priority Sites



## Environmental Constraints to Consider

*Groundwater Recharge Areas, Wellhead Protection Areas, and Priority Species Habitat are geographically-identified environmental constraints recognized as important for the protection of water quality and biodiversity of New Jersey. DEP recommends avoidance of these areas, to the extent possible, in order to minimize the impact to water quality and species habitat.*

### § Groundwater recharge areas

Groundwater recharge areas are those sites where a high volume of precipitation and surface waters infiltrate into the soil and act to resupply surface and ground waters. Protection of these areas from over-development, and addressing stormwater runoff for these areas, directly affects the water quality of both drinking water supplies and water-based habitats.

The New Jersey Geological Survey (NJGS) has developed ground water recharge data sets using several data factors, such as land use patterns, impervious surface amounts, soil types, precipitation, and evaporation rates, among others, to calculate the amount of water each area of the state normally contributes to the underlying aquifers. The data are reported and mapped in several standard categories, in units of inches per year.

For the State Planning process, the original ground water recharge data, calculated for each Watershed Management Area, were converted to a volume-based rating, and then grouped into three classes to simplify further analysis, based on the percent contribution to the total recharge amounts. Those undeveloped areas contributing the highest one-third of the recharge volume in each Watershed Management Area were selected as high priority for protection. The final Ground Water Recharge layer used for this analysis includes all undeveloped areas in the state that were identified as contributing the highest one-third of the recharge volume in the appropriate Watershed Management Area.

There are no areas of high volume groundwater recharge areas located within Bedminster. Nonetheless, groundwater recharge does occur and Bedminster's efforts to protect groundwater recharge areas are important for the protection of the State's water supply.

### § Well Head Protection Areas

Areas of land surrounding public community wells, known as Well Head Protection Areas, from which contaminants may move through the ground to be withdrawn in water taken from the well, have been delineated. Protection of the public health, safety and welfare through protection of ground water resources, ensures a supply of safe and healthful drinking water.

Well Head Protection Areas (WHPA) are mapped areas calculated around a Public Community Water Supply (PCWS) well in New Jersey that delineates the horizontal extent of ground water captured by a well pumping at a specific rate over a two-, five-, and twelve-year period of time for confined wells. The

confined wells have a fifty foot radius delineated around each well that defines the well head protection area, which must be acquired and controlled by the water purveyor in accordance with Safe Drinking Water Regulations (see NJAC 7:10-11.7(b)1).

WHPA delineations are conducted in response to the Safe Drinking Water Act Amendments of 1986 and 1996 as part of the Source Water Assessment Program (SWAP). The delineations are the first step in defining the sources of water to a public supply well. Within these areas, potential contamination will be assessed and appropriate monitoring will be undertaken as subsequent phases of the NJDEP SWAP. WHPA delineation methods are described in ["Guidelines for Delineation of Well Head Protection Areas in New Jersey"](#) .

Updates for Public Community Water Supply Well Head Protection Areas are described in [Well Head Delineations Updates List](#).

A complete list of individual Public Community Water Supply Well Head Protection Area delineations is described in [Well Head Delineations List](#).

There is less than one acre of Well Head Protection area in Bedminster Township. This small area is located on the Township's border with Bridgewater Township.

#### § Priority Species Habitat

Similar to threatened and endangered species, the DEP Endangered Non-Game Species Program also considers "priority species." Priority Species are nongame wildlife that are considered to be species of *special concern* as determined by a panel of experts. These species warrant special attention because of some evidence of decline, inherent vulnerability to environmental deterioration, or habitat modification that would result in their becoming a Threatened species. This category would also be applied to species that meet the foregoing criteria and for which there is little understanding of their current population status in the state. The Landscape Project ranks habitat patches by the status of the species present, as follows:

§ **Rank 2** is assigned to patches containing one or more occurrences of at least one non-listed State priority species.

There are approximately 714 acres of Priority Species Habitat located within Bedminster. Mapping showing Priority Species Habitat is included on the *Threatened & Endangered Species Habitat map*, as discussed earlier in the 'Environmental Constraints to Avoid' section.

# Contaminated Areas Considerations

*All New Jersey municipalities can be home to contaminated sites, whether the contamination comes from industrial, agricultural, retail, or even residential sources. The information provided in this section is intended to help municipal officials identify known contaminated areas and incorporate consideration of these areas into planning efforts. The existence of a contaminated area does not necessarily mean that it is inappropriate for development or redevelopment. Nonetheless, the severity of the contamination, the potential for remediation, and the potential impact on human health must be considered before development or redevelopment plans are underway.*

## Known Contaminated Sites List

The Known Contaminated Sites List for New Jersey 2005 includes those sites and properties within the state where contamination of soil or ground water has been identified, or where there has been, or there is suspected to have been, a discharge of contamination. This list of Known Contaminated Sites may include sites where remediation is either currently under way, required but not yet initiated or has been completed. The data included here dates from 2001. Additionally, new contaminated sites have been identified since the creation of this list and are not included here. For further information contact NJDEP's Site Remediation Program and Waste Management (SRWM) lead program, which are identified with each site listed in this data base. Contact information for SRWMs lead program can be acquired at <http://www.state.nj.us/dep/srp/kcs-nj/>.

Note: There are some sites found in the 'official' KSCNJ list that do not exist in the GIS mapped version. There were about 50 sites that either had poor address descriptions and could not be located accurately or are 'sites' that actually describe a case covering several locations and cannot be expressed by a single point. These problem sites were intentionally omitted from the GIS map.

### ***A: Sites with On-Site Sources of Contamination***

Site Name	Site Address	Site Zip	Pref. ID	Site Link
155 KLINES MILL ROAD	155 KLINES MILL RD	07921	240730	<a href="#">More Info</a>
20 UNION GROVE ROAD	20 UNION GRV RD	07931	166098	<a href="#">More Info</a>
475 LARGER CROSS RD	475 LARGER CROSS RD	07921	221492	<a href="#">More Info</a>
BEDMINSTER STATE POLICE GARAGE	OLD US# 206	07921	015631	<a href="#">More Info</a>
BEDMINSTER MAINT YARD	RTES 202 & 206 M M 31	07921	012709	<a href="#">More Info</a>
CUMBERLAND GULF 061905	215 SH 202 & 206	07978	006397	<a href="#">More Info</a>

DUNWALKE FARM	1215 LARGER CROSS RD	07921	G000031255	<a href="#">More Info</a>
EXXON R/S 33480	RTE 206 & WASHINGTON VALLEY RD	08876	007960	<a href="#">More Info</a>
MARTHAS CLEANERS	75 WASHINGTON VALLEY RD	07978	254783	<a href="#">More Info</a>
SHELL SERVICE STATION #100111	RT 206 & LAMINGTON RD	08057	015940	<a href="#">More Info</a>
VILLAGE CLEANER	462 RTE 206 N	07921	G000060421	<a href="#">More Info</a>

***C: Closed Sites with Restrictions***

Site Name	Site Address	Site Zip	Pref. ID	Site Link
ROY BAKER CO	RTES 206 & 202	07921	003169	<a href="#">More Info</a>

The Known Contaminated Sites in New Jersey report (<http://www.nj.gov/dep/srp/kcs-nj/>) is produced by NJDEP in response to N.J.S.A. 58:10-23.16-17 that requires preparation of a list of sites affected by hazardous substances. It also satisfies the Site Remediation Program's obligations under the New Jersey New Residential Construction Off-Site Conditions Disclosure Act (N.J.S.A 46:3C1 et seq.).

**Known Contaminated Sites - Classification Exception Areas (CEA)**

Classification Exception Areas are DEP designated areas of groundwater contamination meeting certain criteria and associated with Known Contaminated Sites or sites on the Site Remediation Program (SRP) Comprehensive Site List. CEAs are institutional controls in geographically defined areas within which the New Jersey Ground Water Quality Standards (NJGWQS) for specific contaminants have been exceeded. When a CEA is designated for an area, the constituent standards and designated aquifer uses are suspended for the term of the CEA. A public understanding of where groundwater is known to be contaminated can help prevent inappropriate well placement, preventing potential health risks and can minimize unintended contaminant plume migration. Contaminants of concern within a CEA record are described in one of two ways, either in a field named for the contaminant, e.g., benzene; or listed in a general contaminant field, e.g., VO.

The Department currently identifies two (2) CEAs within Bedminster:

- § AT&T Communications (Also CEA-VO)
- § Barker Bus Co. (Also CEA-VO)

For further information about Classification Exception Areas:

[http://www.state.nj.us/dep/srp/guidance/cea/cea\\_guide.htm](http://www.state.nj.us/dep/srp/guidance/cea/cea_guide.htm)

## Landfills

NJDEP maintains a list of landfills in the state, including active facilities, properly closed facilities, those being remediated with public funds, those proposed for redevelopment, and inactive landfills. The state has a landfill strategy to notify and work with owners or other responsible parties to bring into compliance inactive landfills that are out of compliance with closure requirements. Two organizations in NJDEP oversee landfill permitting, remedial, and closure work: the vast majority of operating and inactive landfills come under the jurisdiction of the Solid and Hazardous Waste Program in the Department's Environmental Regulation Program. Those landfills that are being remediated with public funding are overseen by the Site Remediation Program, as are sites that are proposed for redevelopment with any component of future use that might directly impact human health, including industrial, commercial or residential use.

Landfills often represent some of the largest tracts of potentially developable land that a municipality and/or county can include in its smart growth and planning efforts. Turning a former landfill into a beneficial use may then enable the protection of other sensitive areas in a community. Innovative uses of landfills include passive open space, active open space, renewable energy "farms" for wind turbines, gas collection and use, and/or solar collection, shopping centers, and mixed use developments.

The Department's GIS coverage does not currently identify any solid waster landfills in Bedminster.

For questions regarding the redevelopment of landfill sites, please contact the Office of Brownfield Re-Use at (609) 292-1251.

### Attachments:

- § Map - Known Contaminated Sites and Groundwater Contamination Areas  
(Note: This map does not show the extent of contamination, therefore a buffer should be placed around the site for planning purposes.)

# Preserved Lands & Historic Resources

*Open space preservation helps to protect New Jersey's rich natural, historic, and cultural heritage. It ensures that animal and plant habitats are protected and that areas of scenic beauty and agricultural importance are preserved. It safeguards streams and water supplies and provides opportunities to enjoy the outdoors. Open space preservation lies at the core of the quality of life of New Jersey's communities - from the most urbanized cities to the most remote rural areas of the state. Besides enhancing the quality of life, protecting open space can provide economic benefits. It can help a community avoid the costly mistakes of misusing available resources. Protected open space usually raises the taxable value of adjacent properties and is less costly to maintain than the infrastructure and services required by residential development. Even taking into account the increased tax base that results from development, open space usually proves easier on the municipal budget in the long-run.*

*Historic preservation is the identification, evaluation, and protection of historic and archaeological resources so that they continue to play an integral, vibrant role in their communities. New Jersey's historic properties and the environment in which they exist are irreplaceable assets that contribute to the quality of life that residents enjoy and expect. Historic properties are the physical links to our past, providing meaning to the present and continuity with the future. They are the physical records of the events and people that shaped New Jersey's history. Historic properties add visual and intellectual spirit to the physical environment that New Jersey residents experience daily.*

## Preserved Lands

Based on the Department's records, the following two tables represent all of the preserved open space lands located in Bedminster. The total acreage of these lands is approximately 1,785 acres. DEP recognizes that its records may be incomplete or incorrect, and appreciates all assistance in keeping its records up-to-date.

### **State Owned Lands**

<b>NAME</b>	<b>APPROX. ACRES</b>	<b>BLOCK</b>	<b>LOT</b>
HACKELBERRY	28	1	1

### **Municipal, County and Non-Profit Owned Lands**

<b>NAME</b>	<b>ACRES</b>	<b>BLOCK</b>	<b>LOT</b>
(NP HAS C/EASE ON PROPERTY)	46.72	7	22
(NP HAS C/EASE ON PROPERTY)	25.14	7	22
THE POND	25.00	36	19
THE POND	1.62	36	21
THE POND	44.97	42	1.01
PEDESTRIAN ACCESS	73.65	41	26
RIVER ROAD PARK	140.46	41	34
RIVER ROAD PARK	34.07	41	34.01
AT&T SCHLEY MY ROAD	65.74	43.01	1
THE HILLS OPEN SPACE	161.36	59	1

RIVER ROAD PARK	28.34	53	2
PLUCKEMIN ARCHEOLOGICAL DIG	11.56	59	1.102
PEDESTRIAN ACCESS	2.18	53	1
PEDESTRIAN ACCESS	6.06	51	2
PEDESTRIAN ACCESS	6.90	51	2.01
PEDESTRIAN ACCESS	11.09	54	5
BEDMINISTER PARKS DEV	0.40	71	4
RIVER ROAD PARK	4.86	38.01	3.01
PEDESTRIAN ACCESS	0.62	26	8
PEDESTRIAN ACCESS	25.18	26	8
BEDMINISTER PARKS EXP	12.19	32	12
BEDMINISTER PARKS EXP	1.31	35	14
BEDMINISTER PARKS EXPANSION	12.88	35	23
PEDESTRIAN ACCESS	20.67	35	22
PEDESTRIAN ACCESS	14.19	36	14
PEDESTRIAN ACCESS	2.06	41	30
PEDESTRIAN ACCESS	10.59	41	32
RIVER ROAD PARK	4.94	53	1.02
PEDESTRIAN ACCESS	3.05	59	9.02
PEDESTRIAN ACCESS	19.11	53	1
PEDESTRIAN ACCESS	1.47	53	1.01
PEDESTRIAN ACCESS	27.75	51	1
PLUCKEMIN PARK	1.73	71	5
PLUCKEMIN PARK	1.59	71	6
PLUCKEMIN PARK	1.97	71	4.01
PLUCKEMIN PARK	1.00	71	3
LAMINGTON GREENWAY	243.58	45	1
REYNARD RD	0.14	442	19
(TAXMAP SAYS "OPEN SPACE")	0.09	441	1
OPEN SPACE PLAN	0.10	601	1
BRIDGEWATER TWP OS LAND ACQ	0.40	601	5
	1.15	447	14
BAMBOO BROOK	12.22	2	1
WILLOWOOD ARBORETUM	6.70	2	7
BLACK RIVER GREENWAY ACQ	7.15	2	6
COLD BROOK/LAMINGTON RIVER	0.52	23	36
COLD BROOK/LAMINGTON RIVER	2.04	24	20
Unnamed	9.73	40	1
		48 &	4 &
COLD BROOK /LAMINGTON RIVER	57.09	MANY	MANY
SNEAROWSKI FARM	116.77	61	7
SNEAROWSKI FARM	0.28	441	1.31
NORTH BRANCH GREENWAY	0.35	62	27
SECOND WATCHUNG MOUNTAIN GREEN	0.57	901	1
Black River Greenway	57.86	9	1
Black River Greenway	4.20	9	1
Black River Greenway	30.16	9	1
FAIRVIEW FARM	145.75	8	20.01
FAIRVIEW FARM EXPANSION	20.07	8	20
	25.95	8	24.06

	27.16	8	24.12
	9.31	14	1.01
	76.36	39	12
	38.90	39	12.03
Burnt Mills Tract	1.75	1	1
Burnt Mills Tract	0.14	3	1
Burnt Mills Tract	6.54	46	4
FAR HILLS FLOODPLAIN	0.98	16	10

### Historic Resources

The NJ Historic Preservation Office administers a variety of programs that offer protection for historic properties. The HPO consults with federal agencies under Section 106 of the National Historic Preservation Act for federally funded, licensed or permitted projects. At the state level, the New Jersey Register of Historic Places Act requires that actions by state, county, or local governments, which may impact a property listed in the New Jersey Register of Historic Places, be reviewed and authorized through the HPO. The HPO also provides advice and comment for a number of permitting programs within the Department of Environmental Protection, including some permits required under the [Land Use Regulation Program](#).

The most effective way to protect historic resources and promote our architectural and archaeological heritage is through local stewardship. When implemented at the local level, historic preservation activities may take the form of master plan elements, comprehensive zoning ordinances, regulated code enforcement, or public education and outreach programs. Local initiatives have far reaching effects on preserving historic resources for future generations. The HPO provides technical assistance, training, and other resources for historic preservation to New Jersey's communities through a variety of programs.

The following New Jersey and National Registers of Historic Places listings include properties and historic districts in New Jersey for which a formal action was taken by the State Historic Preservation Officer or designee. The listings are current through the end of 2002, and the HPO will update these listings on a periodic basis to reflect ongoing additions and corrections.

The listings itemize the buildings, structures, sites, objects, and districts listed on the New Jersey Register of Historic Places (SR) and the National Register of Historic Places (NR). They also include resources that have received Certifications of Eligibility (COE), opinions of eligibility from the State Historic Preservation Officer (SHPO Opinion), or Determinations of Eligibility (DOE) from the Keeper of the National Register. These properties and historic districts all meet the New Jersey and National Register criteria for significance in American history, archaeology, architecture, engineering or culture, and possess integrity of location, design, setting, materials, workmanship, feeling and association. Properties that have been entered on the New Jersey and/or National Registers of Historic Places are listed by their historic names, which may be different from their current names. Properties that have SHPO Opinions or DOE's are listed by their historic name, when known.



### New Jersey and National Registers of Historic Places

<p>Bedminster Reformed Church (Grace Fellowship Church) (ID#3531)  375 Main Street  SHPO Opinion: 2/25/1985  COE: 6/23/2005</p>	<p>Natirar Estate [Historic District] (ID #4089)  County Route 512  COE: 10/25/2002</p>
<p>Greater Cross Roads Historic District (ID#3441)  Lamington Road  SHPO Opinion: 6/13/1997</p>	<p>Peapack Brook Rural Industrial Historic District (ID #3452)  Old Dutch and Peapack roads  SHPO Opinion: 5/2/1997  Also located in:  Somerset County, Far Hills Borough  Somerset County, Peapack and Gladstone Borough</p>
<p>A. Herzog Farmstead (ID#2459)  190 Pottersville Road  SHPO Opinion: 12/29/1993</p>	<p>Pluckemin Village Historic District (ID#2465)  District is concentrated along US Route 206 and Burnt Mills Road  NR 7/26/1982 (NR Reference #: 82003303)  SR: 2/22/1982</p>
<p>Lamington Historic District (ID#2461)  Portions of Lamington, Black River, Rattlesnake Bridge and Cowperthwaite roads  NR: 6/21/1984 (NR Reference # 84002802)  SR: 5/7/1984</p>	<p>Pottersville Village Historic District (ID #1633)  County Route 512, Hill Street, and McCann Mill Road, Black River and Hacklebarney roads  NR: 9/18/1990 (NR Reference # 90001475)  SR: 8/9/1990</p>
<p>Lesser Crossroads / Bedminster Village Historic District (ID #2462)  Peapack and Lamington roads  SHPO Opinion: 7/21/1992</p>	<p>Jacobus Vanderveer House (ID # 2808)  US Routes 202 and 206, north of River Road  NR: 9/29/1995 (NR Reference #: 95001137)</p>
<p>James Martin House (ID#2463)  120 Pottersville Road  SHPO Opinion: 12/29/1993</p>	<p>Vanderveer Archaeological Site (28-So-97) (ID#2466)  SHPO Opinion: 11/1/1988</p>
<p>McDonald's-Kline's Mill (ID#2464)  Kline's Mill Road  NR: 3/9/1987 (NR Reference # 87000410)  SR: 11/20/1986</p>	

# Regional Planning Areas

*New Jersey and the State Plan have recognized several regional planning areas with a varying degree of regulatory and planning controls. These areas may be specifically identified by an act of the NJ Legislature (Highlands, Meadowlands, Pinelands, Coastal areas) or recognized by the State Plan as Special Resource Areas in order to establish a receptive environment for regional planning efforts (Sourland Mountains, Delaware Bayshore). Information on applicable regional planning areas is included below.*

## HIGHLANDS WATER PROTECTION AND PLANNING COUNCIL

The Highlands Water Protection and Planning Act was signed into law in August 2004, and instituted protective environmental standards for the portion of northern New Jersey, known as the Highlands region. The Act calls for a fifteen member Highlands Water Protection and Planning Council, which is charged with carrying out the provisions of the Act, including the development of a regional master plan for the Highlands Region. The Highlands Region covers portions of seven counties and 88 municipalities, provides drinking water for over 5 million people, and is approximately 1,250 square miles in area.

The Highlands Regional Master Plan seeks to determine the capacity of the Highlands Region to accommodate economic growth while ensuring the stability and safeguarding of the resources within the Region. The Region is divided between “Planning Areas” and “Preservation Areas”, and lands within the Preservation Area are governed by rules and regulations adopted by the New Jersey Department of Environmental Protection. The Highlands Preservation area is under sole planning authority of the Highlands Council. Any municipality, or portion of a municipality, located within the Highlands Preservation area must conform to the Highlands Regional Master Plan. In the Highlands Planning area, a municipality has the ability to choose between Plan Conformance with the Highlands Regional Master Plan, Plan Endorsement with the State Plan, or may choose to move forward with neither of these options.

Bedminster Township is located within the Highlands Region, and partially within in the Highlands Preservation area. The Department will consult with the Highlands Council regarding your petition for Plan Endorsement. Areas within Bedminster Township located within the Preservation Area are required to conform to the Highlands Regional Master Plan. The portion of your municipality located within the Highlands Planning area is being reviewed in the State Plan Endorsement process, and is the subject of this report.

### **Highlands Water Protection and Planning Council**

100 North Road(Route 513)

Chester, New Jersey 07930

(908) 879-6737

Fax: (908) 879 4205

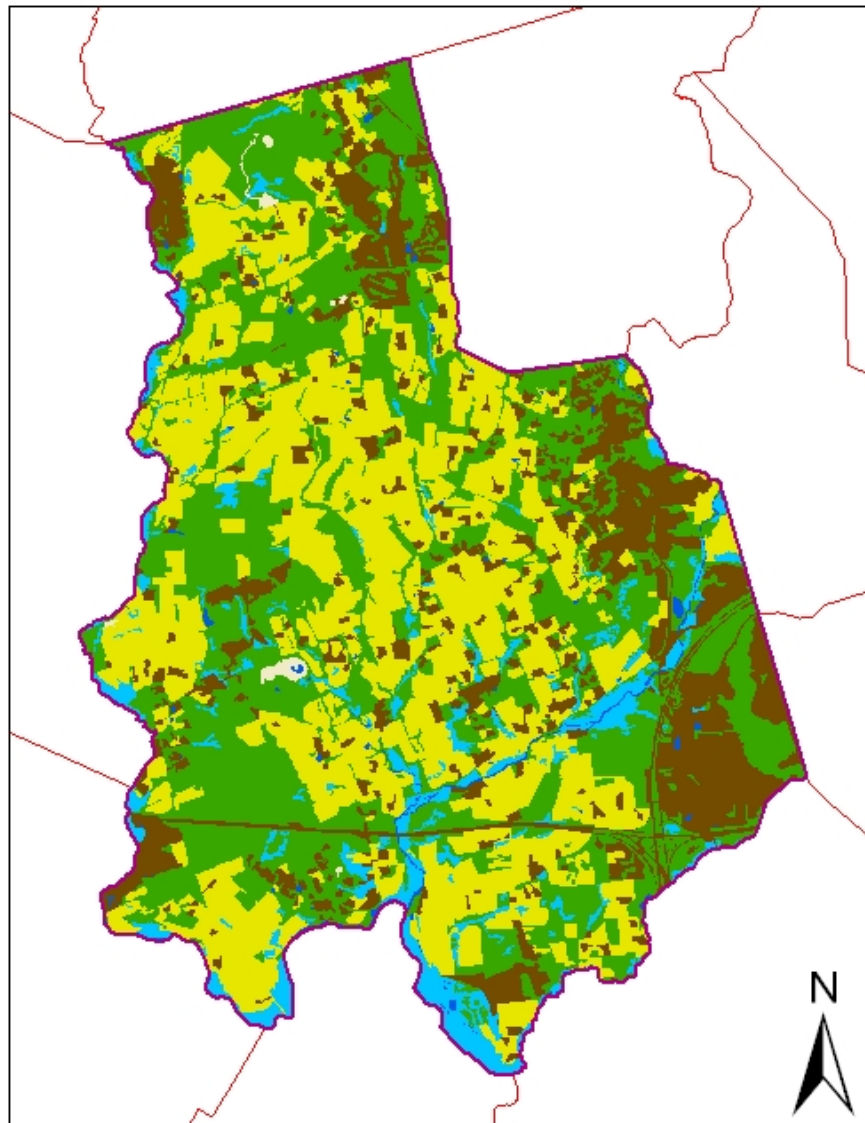
Email:[highlands@highlands.state.nj.us](mailto:highlands@highlands.state.nj.us)

# Summary of Major Issues

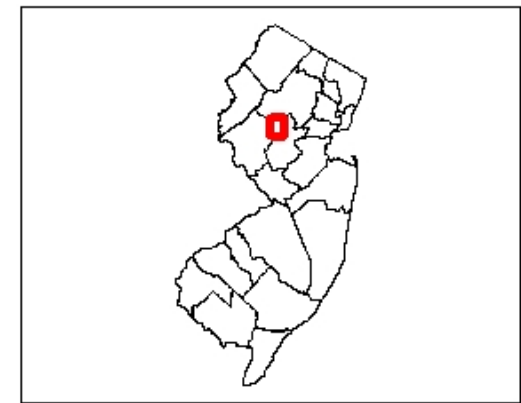
1. Mapping – The Figures cited within the Townships Municipal Self Assessment do not appear in the document. The Department will review these maps during the consistency review stage of the plan endorsement process.
2. Conservation Ordinances - Bedminster's Municipal Self Assessment demonstrates a high level of awareness of the Township's environmental resources and constraints. The Department will work with Bedminster through the Plan Endorsement process to ensure that its municipal ordinances provide adequate protection for these resources.
3. Highlands Region – Areas located within the Highlands Preservation area are required to conform to the Highlands Regional Master Plan.

## **Maps and Additional Information**

# Bedminster Land Use/ Land Cover 2002



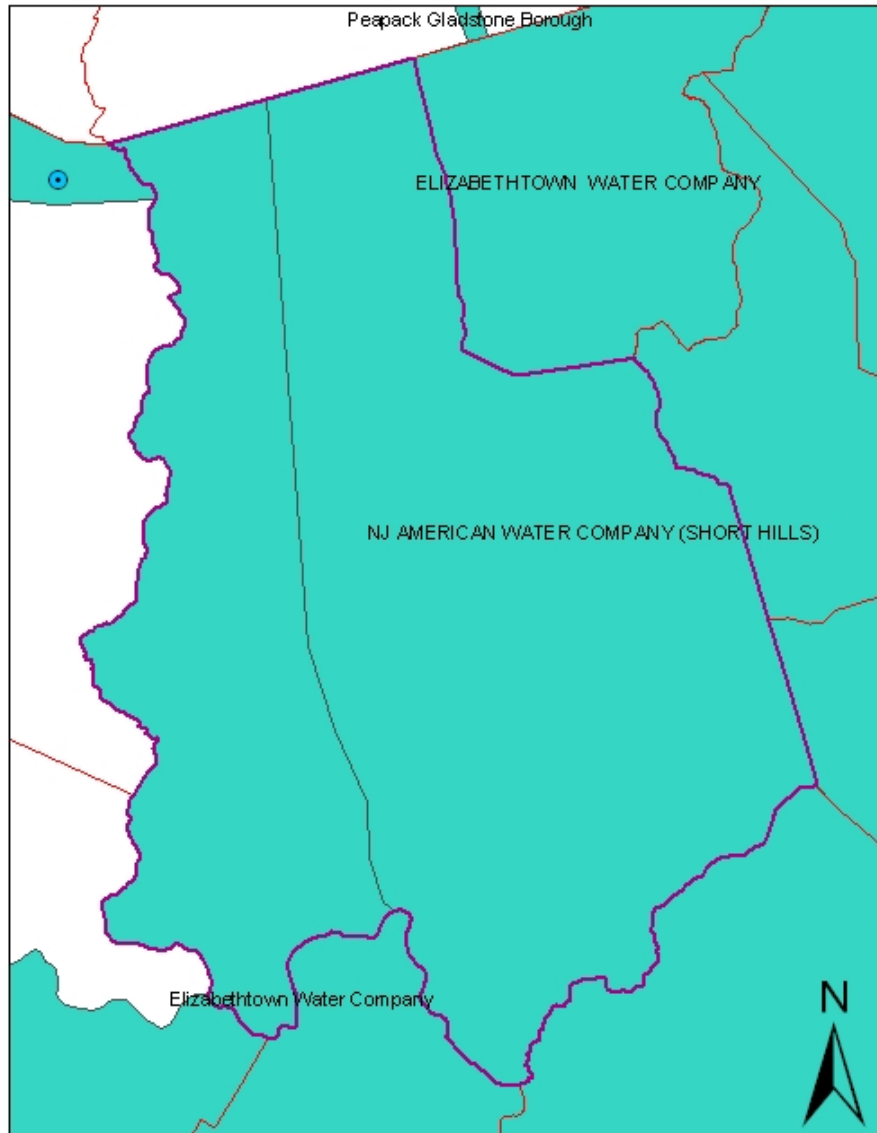
0 6,000 12,000 24,000 Feet



## Legend

-  Bedminster
- LULC Bedminster**
-  AGRICULTURE
-  BARREN LAND
-  FOREST
-  URBAN
-  WATER
-  WETLANDS
-  Municipalities
-  Counties






# Bedminster Water Purveyor Areas



0 6,000 12,000 24,000 Feet



## Legend

-  Bedminster
-  Municipalities
-  Counties
-  Public Community Water Supply Wells
-  Water Purveyor 1998

## **Public Water System Deficit/Surplus**

### **ELIZABETHTOWN WATER COMPANY**

**PWSID:** 2004002

**County:** Union

**Last Updated:** 04/15/08

**Water Supply Firm Capacity:** 231.500 MGD

#### **Available Water Supply Limits**

	<b>Allocation</b>	<b>Contract</b>	<b>Total</b>
<b>Monthly Limit</b>	6761.500 MGM	N/A MGM	6761.500 MGM
<b>Yearly Limit</b>	65022.500 MGY	N/A MGY	65022.500 MGY

#### **Water Demand**

	<b>Current Peak</b>	<b>Date</b>	<b>Committed Peak</b>	<b>Total Peak</b>
<b>Daily Demand</b>	188.460 MGD	08/2006	1.423 MGD	189.883 MGD
<b>Monthly Demand</b>	5842.250 MGM	08/2006	22.056 MGM	5864.306 MGM
<b>Yearly Demand</b>	55119.090 MGY	2007	173.131 MGY	55292.221 MGY

#### **Water Supply Deficit or Surplus**

<b>Firm Capacity</b>	<b>Water Allocation Permit</b>
41.617 MGD	897.194 MGM
	9730.279 MGY

**Note:** Negative values (a deficit) indicate a shortfall in firm capacity and/or diversion privileges or available supplies through bulk purchase agreements.

#### **Bureau of Water System and Well Permitting Comments:**

Well source capacity as reported is 16.50 MGD

#### **Bureau of Water Allocation Comments:**

Contractual commitments for the bulk sale of water may reduce any water supply surplus

For more information concerning water supply deficit and surplus, please refer to:

► [Firm Capacity and Water Allocation Analysis](#) (Pdf Format)

► [Currently Effective Water Allocation Permits by County](#)

This report displays all effective water allocation permits issued by the department.

► [Pending Water Allocation Permits with Requests for a Hearing](#)

All pending water allocation permits with public hearing requests.

► [Water Allocation Permits Made Effective within a Selected Timeframe](#)

This report displays water allocation permits based on a specified date range.

**Questions regarding safe demands and firm capacity please contact the Bureau of Water System and Well Permitting at 609-984-6831 or for questions concerning water allocation and status please contact the Bureau of Water Allocation at 609-292-2957.**

Questions may also be sent to the [Division of Water Supply](#)

## Glossary of Terms

**Allocation Limit:** The maximum allowed by a valid Water Allocation Permit issued by the Bureau of Water Allocation. This may be surface or ground water, and may be expressed in MGD, MGM, MGY or some combination thereof. Withdrawals may also be limited by other factors and have seasonal or other restrictions such as passing flow requirements.

**Committed Peak Demand:** The demand associated with projects that have been approved for ultimate connection to the system, but are not yet constructed as indicated through the submission of construction certifications or certificates of occupancy. This is calculated by totaling the demand as included in Water Main Extension (WME) permits and the demand associated with projects not requiring a WME permit. For various review purposes this quantity may be represented as MGD, MGM and/or MGY.

**Contract Limit:** Purchased water, where regulated by an approved service contract, may be included in the overall allocation quantity where appropriate. Contracts may exist with minimum, maximum, seasonal or other restrictions. In some instances, the value is an estimate, not an exact limit.

**Current Peak Demand:** This is the average day of the highest recorded demand month occurring within the last five (5) years. (For the purpose of this table, the calculation for current peak demand was based on 31 days. Systems will be reviewed on an individual basis.) This includes water from a system's own sources and all other sources of water (i.e. purchased water).

**Firm Capacity:** Adequate pumping equipment and/or treatment capacity (excluding coagulation, flocculation and sedimentation) to meet peak daily demand, when the largest pumping unit or treatment unit is out of service. The value is represented in MGD.

**Firm Capacity Deficit or Surplus = (Firm Capacity - Total Peak Daily Demand):** The difference between the Firm Capacity and the sum of the peak daily demand and committed daily demand. This is a measure of the physical ability to provide treated water at adequate pressure when the largest pumping unit or treatment unit is out of service. Negative values indicate a shortfall in Firm Capacity.

**Requested Allocation:** The amount of water the public water system is requesting as part of its water allocation permit application, including existing allocations. This value is represented in MGM and MGY.

**Total Peak Water Demand:** The sum of the public water system's current peak demand and committed peak demand. The value is represented in MGD, MGM, and MGY.

**Total Available Water Supply:** The sum of the Allocation Limit and Contract Limit. This value is represented in MGM and MGY.

**Water Supply Deficit or Surplus = (Total Water Allocation Permit Limit- Total Peak Demand):** The monthly and/or annual limitations of an Allocation Permit minus the sum of the monthly and/or annual demands recorded based on the water use records plus the monthly and/or annual demand projected for approved but not yet constructed projects. Negative values indicate a shortfall in diversion privileges or available supplies through bulk purchase agreements.

## Public Water System Deficit/Surplus



## NEW JERSEY AMERICAN WATER COMPANY - SHORT HILLS

**PWSID:** 0712001

**County:** Essex

**Last Updated:** 02/25/08

**Water Supply Firm Capacity:** 73.367 MGD

### Available Water Supply Limits

	<b>Allocation</b>	<b>Contract</b>	<b>Total</b>
<b>Monthly Limit</b>	1113.000 MGM	952.200 MGM	2065.200 MGM
<b>Yearly Limit</b>	9820.000 MGY	8935.100 MGY	18755.100 MGY

### Water Demand

	<b>Current Peak</b>	<b>Date</b>	<b>Committed Peak</b>	<b>Total Peak</b>
<b>Daily Demand</b>	53.436 MGD	08/2005	1.136 MGD	54.572 MGD
<b>Monthly Demand</b>	1656.516 MGM	08/2005	17.608 MGM	1674.124 MGM
<b>Yearly Demand</b>	14447.055 MGY	2005	138.213 MGY	14585.268 MGY

### Water Supply Deficit or Surplus

<b>Firm Capacity</b>	<b>Water Allocation Permit</b>
18.795 MGD	391.076 MGM
	4169.832 MGY

**Note:** Negative values (a deficit) indicate a shortfall in firm capacity and/or diversion privileges or available supplies through bulk purchase agreements.

### Bureau of Water System and Well Permitting Comments:

Bulk purchase from NJAWC-Elizabethtown PVWC and Morris County MUA. 75% of the monthly and 50% of the annual maximum purchase amount for PVWC & MCMUA have been utilized in this table. The safe yield of the surface water component is 3942 MGY

### Bureau of Water Allocation Comments:

5008 5011 5013 5157 and 10786W. Overall combined Limit Permit Condition for all Permits is 11328 MGY. When applying S.Y. limits the annual limit becomes 9820 MGY.

For more information concerning water supply deficit and surplus, please refer to:

► [Firm Capacity and Water Allocation Analysis](#) (Pdf Format)

► [Currently Effective Water Allocation Permits by County](#)

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[back to search results](#)

## Glossary of Terms

**Allocation Limit:** The maximum allowed by a valid Water Allocation Permit issued by the Bureau of Water Allocation. This may be surface or ground water, and may be expressed in MGD, MGM, MGY or some combination thereof. Withdrawals may also be limited by other factors and have seasonal or other restrictions such as passing flow requirements.

**Committed Peak Demand:** The demand associated with projects that have been approved for ultimate connection to the system, but are not yet constructed as indicated through the submission of construction certifications or certificates of occupancy. This is calculated by totaling the demand as included in Water Main Extension (WME) permits and the demand associated with projects not requiring a WME permit. For various review purposes this quantity may be represented as MGD, MGM and/or MGY.

**Contract Limit:** Purchased water, where regulated by an approved service contract, may be included in the overall allocation quantity where appropriate. Contracts may exist with minimum, maximum, seasonal or other restrictions. In some instances, the value is an estimate, not an exact limit.

**Current Peak Demand:** This is the average day of the highest recorded demand month occurring within the last five (5) years. (For the purpose of this table, the calculation for current peak demand was based on 31 days. Systems will be reviewed on an individual basis.) This includes water from a system's own sources and all other sources of water (i.e. purchased water).

**Firm Capacity:** Adequate pumping equipment and/or treatment capacity (excluding coagulation, flocculation and sedimentation) to meet peak daily demand, when the largest pumping unit or treatment unit is out of service. The value is represented in MGD.

**Firm Capacity Deficit or Surplus = (Firm Capacity - Total Peak Daily Demand):** The difference between the Firm Capacity and the sum of the peak daily demand and committed daily demand. This is a measure of the physical ability to provide treated water at adequate pressure when the largest pumping unit or treatment unit is out of service. Negative values indicate a shortfall in Firm Capacity.

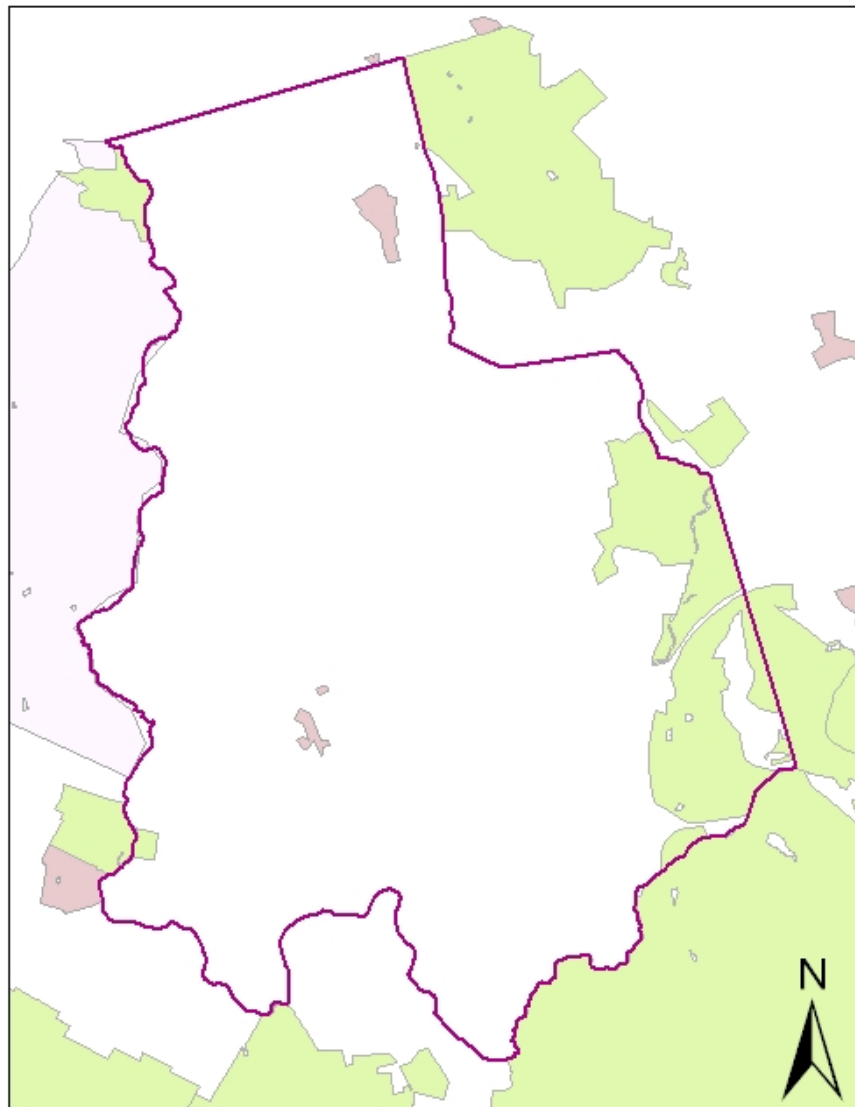
**Requested Allocation:** The amount of water the public water system is requesting as part of its water allocation permit application, including existing allocations. This value is represented in MGM and MGY.

**Total Peak Water Demand:** The sum of the public water system's current peak demand and committed peak demand. The value is represented in MGD, MGM, and MGY.

**Total Available Water Supply:** The sum of the Allocation Limit and Contract Limit. This value is represented in MGM and MGY.

**Water Supply Deficit or Surplus = (Total Water Allocation Permit Limit- Total Peak Demand):** The monthly and/or annual limitations of an Allocation Permit minus the sum of the monthly and/or annual demands recorded based on the water use records plus the monthly and/or annual demand projected for approved but not yet constructed projects. Negative values indicate a shortfall in diversion privileges or available supplies through bulk purchase agreements.

# Bedminster Sewer Service Areas



0 6,000 12,000 24,000 Feet




## Legend

 Bedminster


### Sewer Service Areas - Existing


#### TYPE

 GW < 20,000

 GW < 20K, < 2K

 GWIND

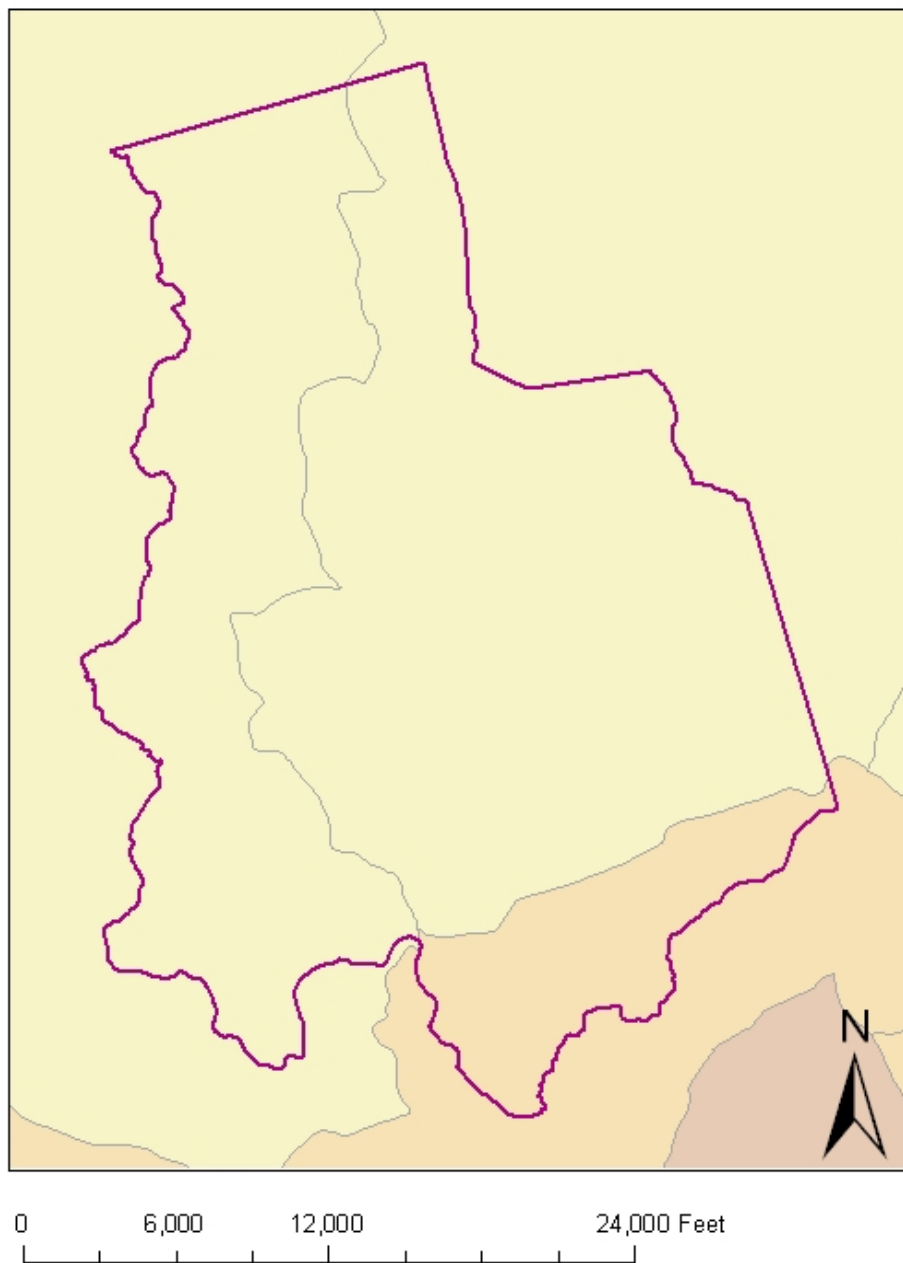
 Holding Tank

 Non-Discharge

 SW

 SW/GW

# Bedminster Nitrate Dilution Density by HUC11



## Legend

 Bedminster

**NO3\_Analysis\_HUC11**

### Descript



3 acre lots



4 - 4.9 acre lots



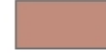
5 - 5.9 acre lots



6 - 6.9 acre lots



7 - 7.9 acre lots



8 - 8.9 acre lots

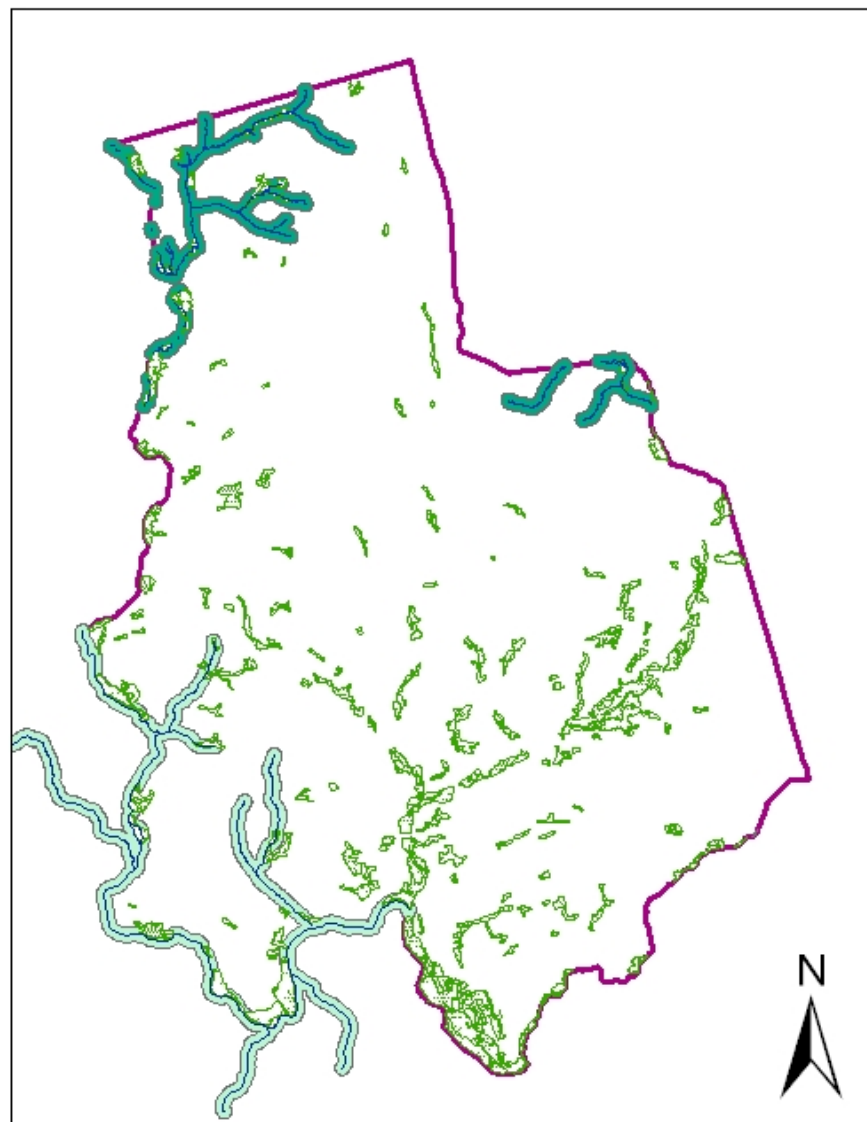


9 - 9.9 acre lots



> 10 acre lots

## Bedminster Wetlands, C1 buffers, and proposed C1 buffers



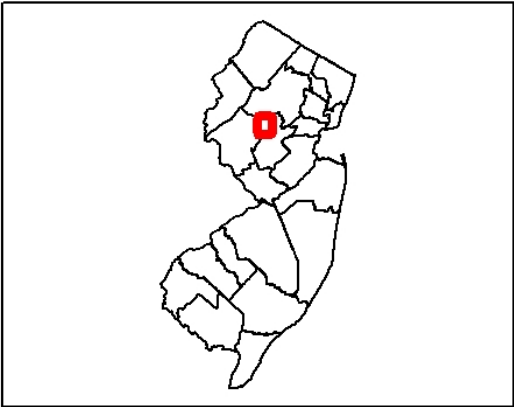
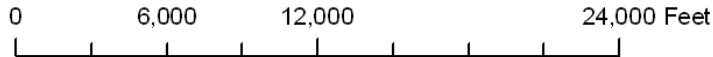
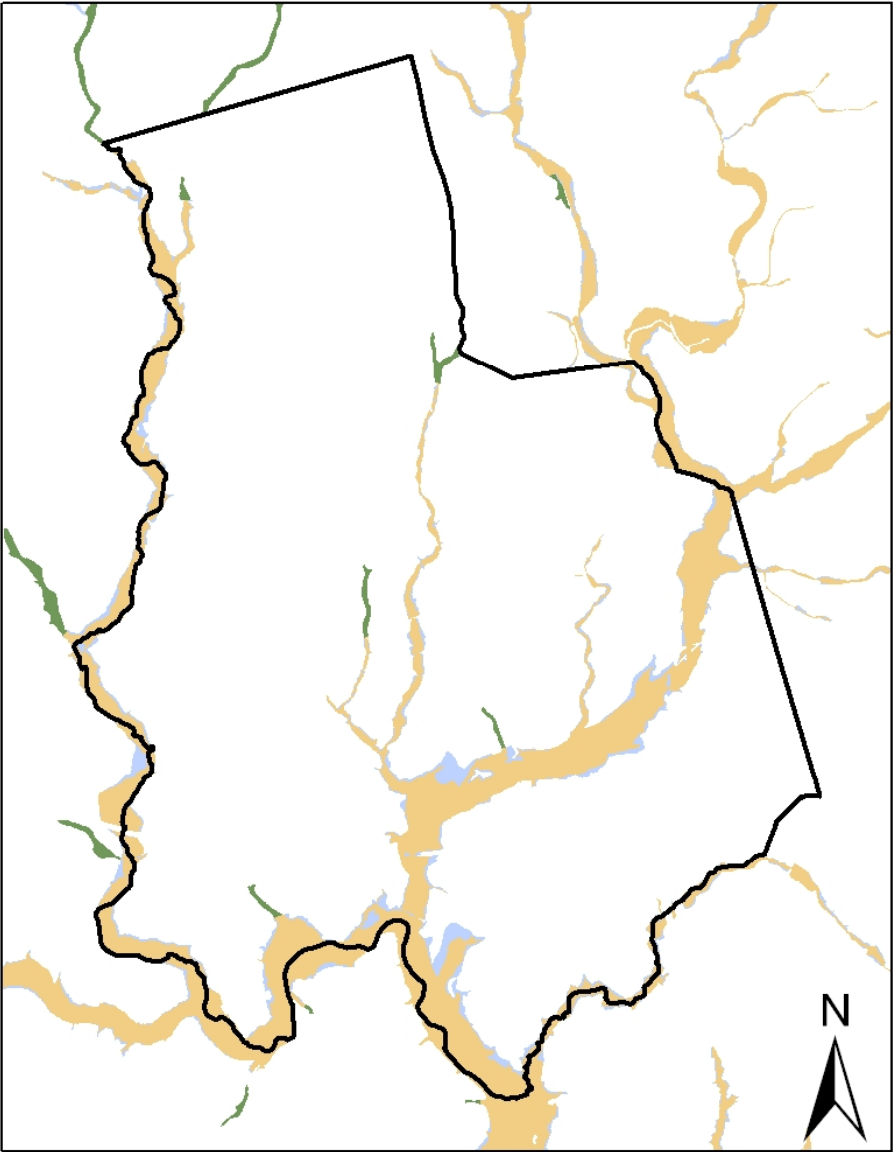
0 5,500 11,000 22,000 Feet



### Legend

- Bedminster C1 streams
- Bedminster proposed C1 streams
- Bedminster proposed C1 buffers
- Bedminster C1 buffers
- Bedminster wetlands
- Bedminster

# Bedminster FEMA Zones

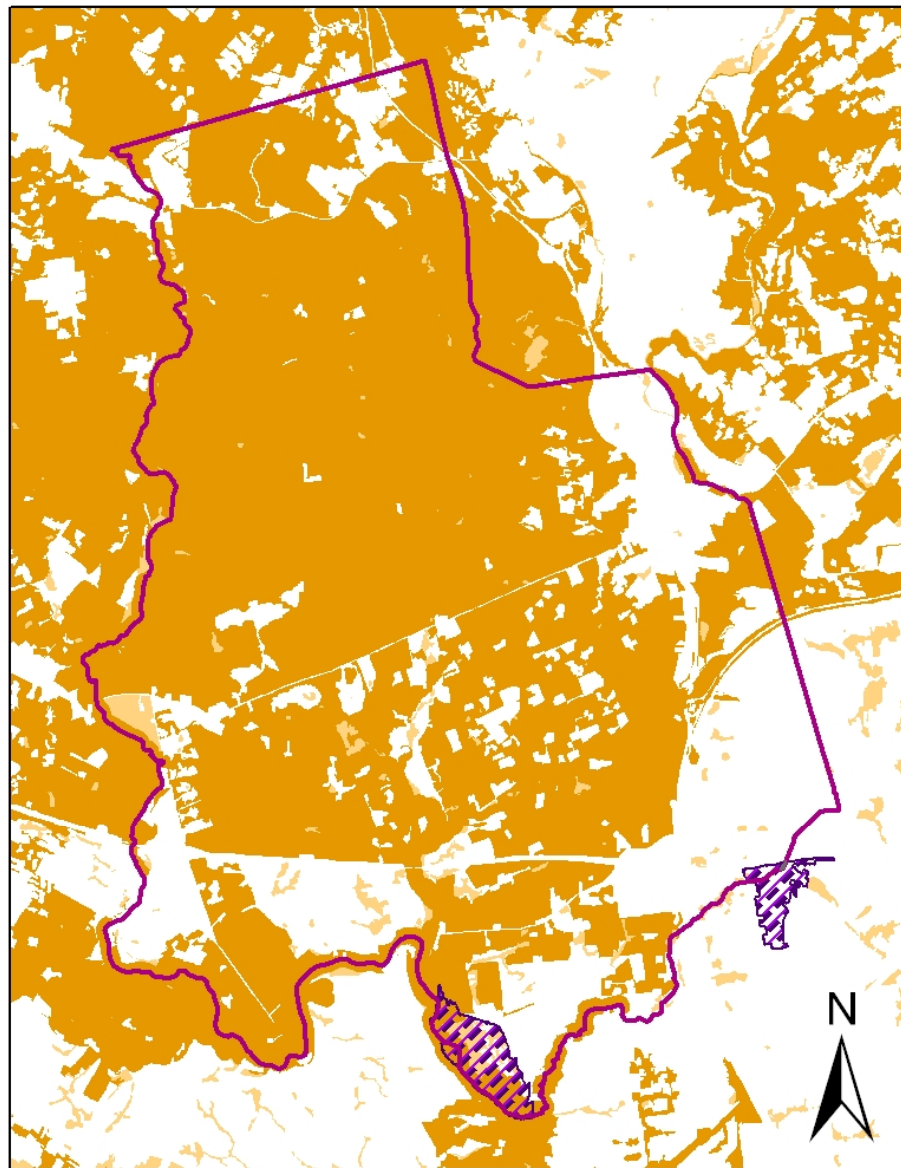


## Legend

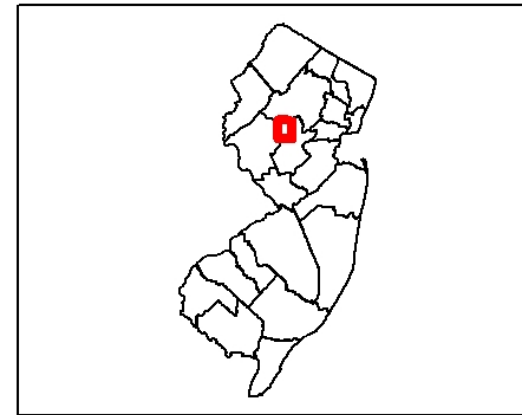
NJFEMA  
ZONE

- A
- AE
- X500




# Bedminster Priority, Threatened and Endangered Species Habitat



0 5,500 11,000 22,000 Feet

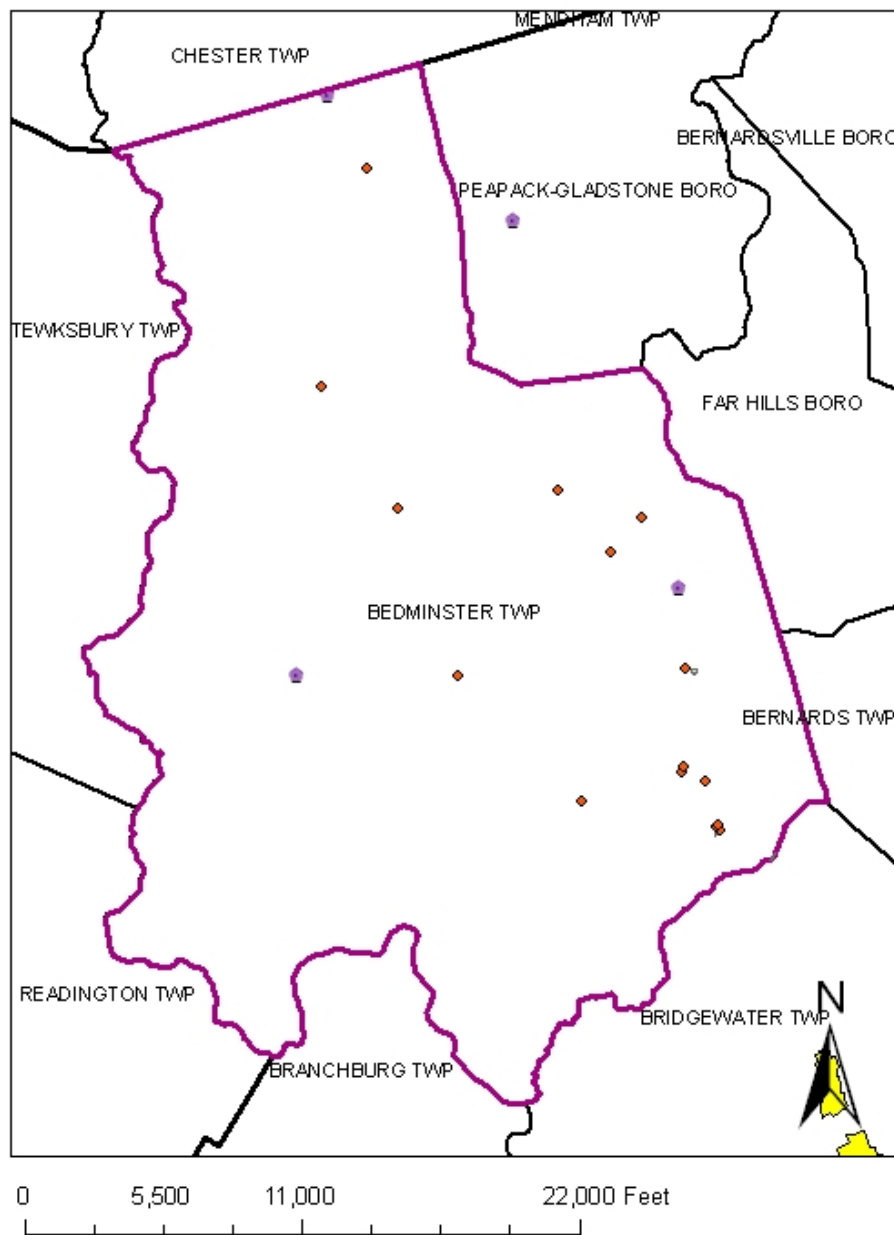


## Legend

-  NHPS
-  Landscape Project - Rank 2
-  Landscape Project - Rank 3, 4, 5



# Bedminster Known Contaminated Sites and Groundwater Contamination Areas

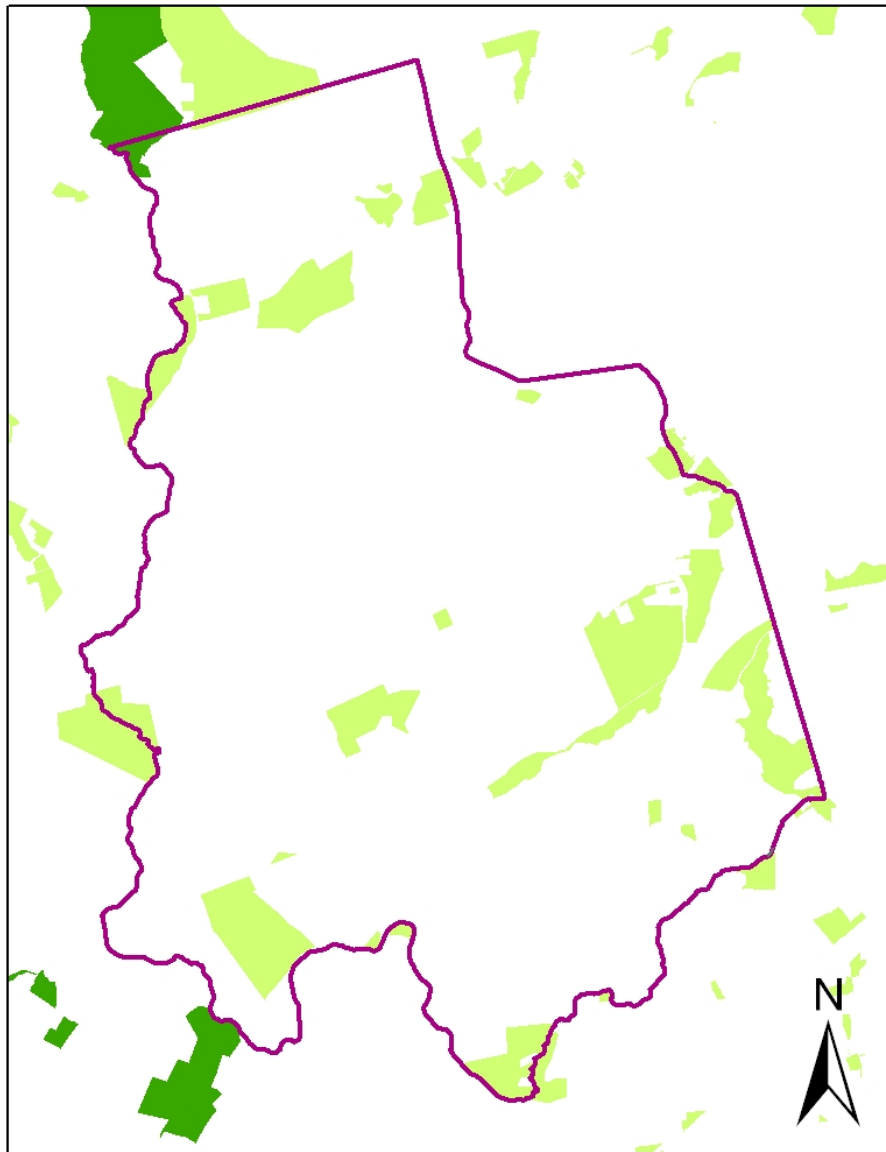


## Legend

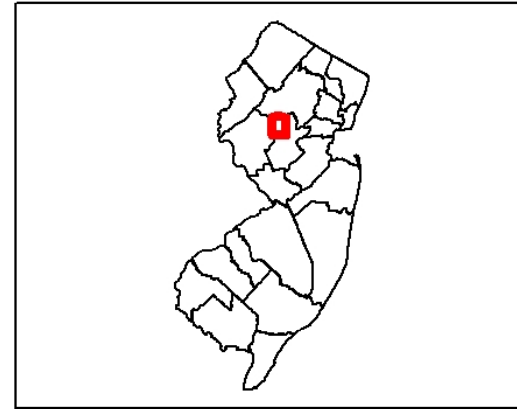
- ◆ BedminsterKCS
- KCSL (Re-Evaluation Sites)
- Groundwater Contamination Areas (CKE)
- Groundwater Contamination Areas (CEA\_VO)
- Groundwater Contamination Areas (CEA)
- Bedminster
- Municipalities
- Counties



# Bedminster Preserved Open Space



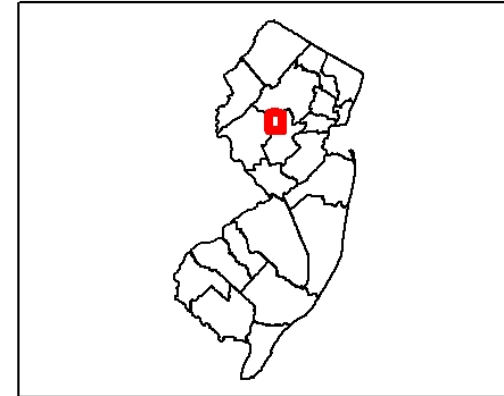
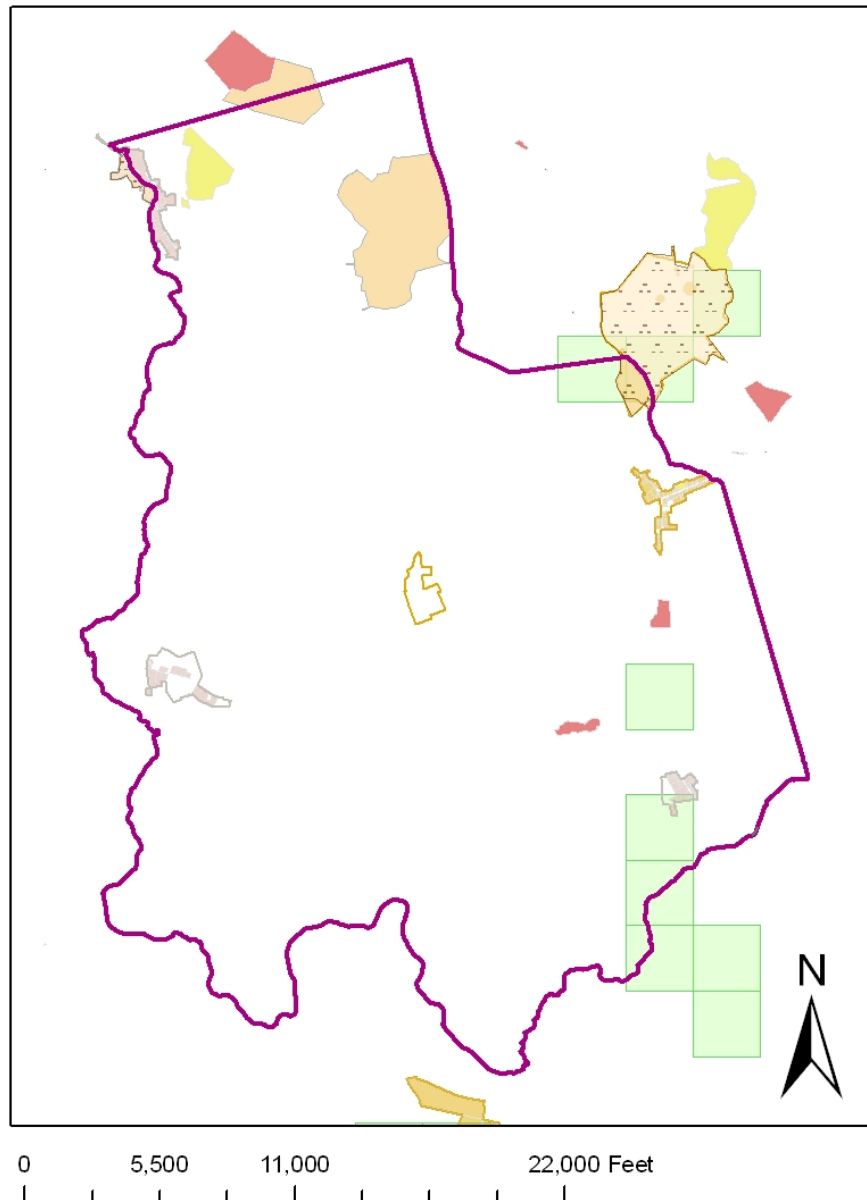
0 5,500 11,000 22,000 Feet



## Legend

- OpenSpace-StateOwned
- OpenSpace-Local & NonProfit

# Bedminster Historic Resources



## Legend

 Historical Sites


## Historic Properties

 Eligible (HD)

 Eligible (Indv.)

 Identified

 Identified (HD)

 Identified (Indv.)

 Listed (HD)


 Listed (Indv.)

## Historic Districts

 Eligible

 Identified

 Listed

 Historic Archaeological Site Grid

## **NJDEP Office of Planning and Sustainable Communities**

The Office of Planning and Sustainable Communities was formed to facilitate the Department's move toward a proactive planning approach based on principles of sustainability and environmental capacity-based planning.

### **Mission**

To coordinate the [sustainable development](#) and [environmental capacity-based planning](#) policies of the Department and proactively work with other state agencies, regional entities, local governments and other groups to incorporate these policies into all levels of land use and environmental planning.

### **Background**

In January, 2007, the Department of Environmental Protection (DEP) adopted its [Policy Priorities and Action Plan](#) which outlines the strategic direction of the agency over the next three years. The Plan identifies eight broad goal areas and underlying objectives.

One of the eight goal areas is Sustainable Growth:

Maximize use of department resources to encourage sustainable growth and livable communities by incorporating consistent criteria for the protection of natural resources and development of smart growth and green design principles into DEP rulemaking, priority setting and planning efforts, other state smart and economic growth priorities, and in regional and local planning efforts.

The first objective of this goal is:

“Incorporate sustainable growth and environmental protection criteria into state, regional and local planning.”

At the core of this goal is a recognized need for more progressive statewide environmental planning by the Department to help inform the local land use development and redevelopment process. Historically, the Department has engaged primarily in environmental planning in targeted areas based on statutory direction. Critically important work has been done in such areas as water quality management planning, water supply master planning, habitat protection planning (Landscape Project) and county/state solid waste planning. DEP is now committed to ensuring that these various planning programs are integrated and coordinated so that our guidance to regional and local planning agencies is consistent, comprehensive and supportive of both local and state priorities.

In a significant business practice improvement, DEP is also committed to implementing the Sustainable Growth goal by broadening the scope of its major project review process by requiring consideration and rewarding incorporating of green design the principles and practices.

The Department's extensive and innovative application of information technology systems, such as the New Jersey Environmental Management System (NJEMS), DEP's Geographic Information System, [i-MapNJ](#), and [Data Miner](#) now provide us with unprecedented opportunities to share information to help guide the development and redevelopment process.

Taken together, our advances with information technology and business practice reform now enable us to engage in progressive environmental planning to address such pressing statewide issues such as sustainable growth, environmental justice, greenhouse gas emissions reduction, and water resource protection in new, innovative ways.

**Office of Planning and Sustainable Communities**

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